



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**16.07.2003 Bulletin 2003/29**

(51) Int Cl.7: **G06F 17/60, G06F 9/46**

(43) Date of publication A2:  
**11.10.2000 Bulletin 2000/41**

(21) Application number: **00302178.9**

(22) Date of filing: **17.03.2000**

(84) Designated Contracting States:  
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU**  
**MC NL PT SE**  
 Designated Extension States:  
**AL LT LV MK RO SI**

(72) Inventors:  
 • Bird, Colin Leonard  
 Winchester, Hampshire SO21 2JN (GB)  
 • Ibbotson, John Brian, IBM UK Ltd., IPL  
 Winchester, Hampshire SO21 2JN (GB)

(30) Priority: **19.03.1999 GB 9906231**  
**04.06.1999 GB 9912901**

(74) Representative: Jennings, Michael John  
 IBM United Kingdom Limited,  
 Intellectual Property Department,  
 Hursley Park  
 Winchester, Hampshire SO21 2JN (GB)

(71) Applicant: **International Business Machines Corporation**  
**Armonk, NY 10504 (US)**

(54) **Message broker providing a publish/subscribe service and method of processing messages in a publish/subscribe environment**

(57) Provided is a message broker and a method of processing message content within a publish/subscribe message distribution service. The message broker and method extends publish/subscribe service capability to heterogeneous communications networks in which different subscriber systems can have very different capabilities in terms of their multimedia presentation capabilities, processing capabilities and storage capabilities. The broker modifies the content of messages received from publisher application programs to conform to the

subscriber system capabilities prior to distribution to subscriber applications. The broker is adapted to identify characteristics of the content of received messages and to use this information to determine which of a set of message handler modules to pass the message to. Derived messages are generated by the selected message handler module and sent to subscribers for which this message type or message content has been requested. A multimedia processing module is preferably selected in response to identification of certain multimedia content.

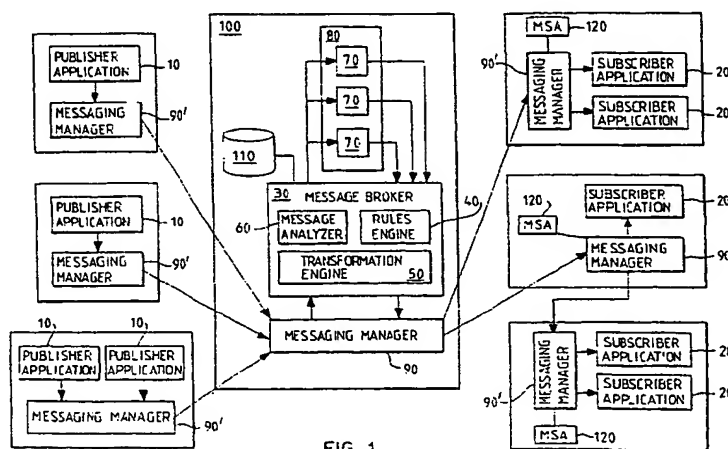


FIG. 1



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 00 30 2178

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	EP 0 806 731 A (SUN MICROSYSTEMS INC) 12 November 1997 (1997-11-12) * abstract * * page 2, line 1-16 * * page 13, line 23-54 * * page 15, line 15-31 *	1-24	G06F17/60 G06F9/46
Y	US 5 499 109 A (GALLO KEVIN T ET AL) 12 March 1996 (1996-03-12) * abstract *	1-24	
Y	EP 0 872 990 A (AT & T CORP) 21 October 1998 (1998-10-21) * abstract * * column 1, line 42-49 * * column 4, line 21-44 *	4,5	
A	US 5 815 665 A (BALAZ RUDOLPH ET AL) 29 September 1998 (1998-09-29) * abstract *	1-24	
A	EP 0 600 235 A (SOFTWARE AG) 8 June 1994 (1994-06-08) * abstract *	1-24	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G06F
A	US 5 812 768 A (EJTEMAI-JANDAGHI OMID ET AL) 22 September 1998 (1998-09-22) * abstract *	1-24	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 9 April 2003	Examiner Viets, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 (03.92) (P04C01)

# ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 00 30 2178

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-04-2003

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0806731	A	12-11-1997	US 5873084 A	16-02-1999
			EP 0806731 A2	12-11-1997
			JP 10027121 A	27-01-1998
			US 5974417 A	26-10-1999
-----				
US 5499109	A	12-03-1996	WO 9522865 A1	24-08-1995
			US 5991050 A	23-11-1999
-----				
EP 0872990	A	21-10-1998	US 2001039615 A1	08-11-2001
			CA 2232247 A1	15-10-1998
			EP 0872990 A1	21-10-1998
			JP 10303986 A	13-11-1998
-----				
US 5815665	A	29-09-1998	NONE	
-----				
EP 0600235	A	08-06-1994	US 5329619 A	12-07-1994
			AT 163340 T	15-03-1998
			DE 69317037 D1	26-03-1998
			DE 69317037 T2	23-07-1998
			DE 600235 T1	06-04-1995
			EP 0600235 A1	08-06-1994
			ES 2112944 T3	16-04-1998
			US 5812768 A	22-09-1998
-----				
US 5812768	A	22-09-1998	US 5329619 A	12-07-1994
			AT 163340 T	15-03-1998
			DE 69317037 D1	26-03-1998
			DE 69317037 T2	23-07-1998
			DE 600235 T1	06-04-1995
			EP 0600235 A1	08-06-1994
			ES 2112944 T3	16-04-1998
-----				

EPOFORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/62

**THIS PAGE BLANK (USPTO)**

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

☒ **BLACK BORDERS**

☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**

☐ **FADED TEXT OR DRAWING**

☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**

☐ **SKEWED/SLANTED IMAGES**

☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**

☐ **GRAY SCALE DOCUMENTS**

☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**

☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**

☐ **OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**

**THIS PAGE BLANK (USPTO)**